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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,938	09/26/2003	Tushad P. Driver	066243-0173 (132258IT)	9505

7590 11/15/2006	**EXAMINER**
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2628	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/672,938	DRIVER ET AL.
	Examiner	Art Unit	
	David H. Chu	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 October 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-41</u> is/are pending in the application.

    4a) Of the above claim(s) <u>7-24</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6, 25-38,40 and 41</u> is/are rejected.

7)☒ Claim(s) <u>39</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Election/Restriction

1.   Acknowledgment is made of the election of claims filed by the applicant on

10/06/2006, in which:

- The applicant elected claims 1-6, 25-41

2.   Claims 1-41 are currently pending in U.S. Application Serial No. 10/672938 and

an Office Action on the merits follows.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-6, 25-33, 35-37 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (PGPUB Document No. US 2002/0039084).

5.   <u>Note with respect to claim 1</u>,

6.   Yamaguchi teaches:

A system using a display area having a **first display of a first resolution** and a **second display of a second resolution** different than the first resolution [0054]

7.   However, Yamaguchi does not expressly teach:

- Moving a graphical element displayed on the first display to be displayed on the second display

- Scaling the graphical element on the second display such that the graphical element has a different pixel size on the second display than it did on the first display.

8.   Yamaguchi teaches:

- Exchanging images that are to be displayed on the respective displays
  [0045]

9.   Yamaguchi does not explicitly teach whether that **exchanging images on the respective displays** denote exchanging images among displays (moving an image from one display to another) or exchanging images from the database.

10.   It is well known in the art for **doctors to see more than one image in detail to enable accurate diagnosis**, by exchanging a medical image from a low resolution display to a higher resolution display, wherein the plurality of displays are simultaneously [0036] displaying medical images.

11.   Further, it is well known in the art to view the maximized image on a display to best utilize screen real estate for a more detailed view, enabling accurate diagnosis. Wherein, viewing the maximized image from the first display to the second display of different resolution inherently **scales** the image, resulting in **different pixel size**.

12.   Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to allow the doctor to switch which image is displayed in high resolution among displays using the medical imaging display system of Yamaguchi,

because this allows moving an image to a higher resolution display for a more detailed

view enabling accurate diagnosis, as suggested by Yamaguchi [0045].

13.   Note with respect to claim 2,

14.   Yamaguchi teaches:

The method of claim 1,

a) Wherein the **amount the image is scaled** when displayed on the second

   display compared to the first display **is proportional to the difference in the**

   first resolution and the second resolution [the maximized image of the

   first display being viewed on the second display, as discussed

   above, results in the image being proportional to the difference in

   the first resolution and the second resolution]

15.   Note with respect to claim 3,

16.   Yamaguchi teaches:

The method of claim 1,

a) Wherein the first display is a high resolution display and the second display is

   a low resolution display [as discussed above, Yamaguchi teaches

   exchanging medical images displayed on a different resolution

   displays. Exchanging images result in the process of moving an

image from a high resolution display to a low resolution display and

visa versa].

17.   Note with respect to claim 4,

18.   Yamaguchi teaches:

The method of claim 1,

a) Wherein the first display is a color display and the second display is a high

resolution display [0057].

19.   Note with respect to claim 5,

20.   Yamaguchi teaches:

The method of claim 4,

a) Wherein the second display has a pixel area of at least about 1200 pixels by

about 1600 pixels [0052].

21.   Note with respect to claim 6,

22.   Yamaguchi teaches:

The method of claim 4,

a) Wherein the first display and the second display are controlled by a common

processing circuit of a common workstation [*controller 20 constructed*

by a known workstation or personal computer] [0036-0038]

23. <u>Note with respect to claim 25</u>, claim 25 is similar in scope to the claim 1, thus the

rejections to claim 1 hereinabove are also applicable to claim 25.

24. Moving a maximized image to one display to another results in **dynamically**

scaling the image, as recited by applicant, wherein the display automatically displays

the image in full screen.

25. <u>Note with respect to claim 26</u>,

26. Yamaguchi teaches:

The software program of claim 25,

a) Wherein dynamically scaling the moved graphical element comprises

changing a number of pixels used to display the graphical element [*as*

discussed above exchanging maximized full screen images to a display

of different resolution, results in **changing a number of pixels used**

to display the graphical element, *as recited by applicant*]

27.   <u>Note with respect to claim 27</u>,

28.   Yamaguchi teaches:

The software program of claim 26,

   a) Wherein a **scaling factor** [*the scaling factor is the ratio of the difference in resolutions of the displays, wherein the image is being exchanged*] is used to **determine the number of pixels used to display the image on the second display** [*when displaying a full screen/maximized image on the displays the images are being exchanged, the ratio above is used in determining the number of pixels used to display the image*]

29.   <u>Note with respect to claim 28</u>,

30.   Yamaguchi teaches:

The software program of claim 27,

   a) Wherein the moved graphical element is plotted in a **virtual space** [*any medical image, such as an X-ray and MRI, presented on a display is a virtual representation on a virtual space*], and the **scaling factor is based on the plot of the graphical element** [*the exchanged images for view on different displays are clearly plotted based on the scaling factor as discussed above*]

31.   <u>Note with respect to claim 29</u>,

32.   Yamaguchi teaches:

The software program of claim 25, further comprising:

a) A display protocol that allows a high resolution display to display a graphical

element in **high resolution** [*1600x1200*] [0052]

b) A color display to display a graphical element in a resolution appropriate for

the **color display** at a same time [0057]

33.   <u>Note with respect to claim 30</u>,

34.   Yamaguchi teaches:

The software protocol of claim 25,

a) Wherein the allocation protocol is adapted to **allow a graphical element to**

be dragged from the first display to the second display [*the controller*

20, discussed above, exchanging images from one display to another

is the equivalent to dragging an image on one display onto another]

35.   <u>Note with respect to claim 31</u>,

36.   Yamaguchi teaches:

The software program of claim 25, further comprising:

a) A **hardware identification protocol** [*controller 20*] that is configured to

identify a type of display connected to the workstation for which the software

program is operating,

    i. Wherein the allocation protocol **allocates graphical elements to**

    be displayed based on the type of display identified by the

    hardware identification protocol [*controller determines*

    whether the data should be displayed on a color or

    monochrome display]

    [0062] [0045]

37.   <u>Note with respect to claim 32,</u>

38.   Yamaguchi teaches:

The software program of claim 31, further comprising:

a) A **network communication manager** [*controller 20 connected to a*

network in a medical facility] configured to facilitate a transfer of a

medical image, acquired by a medical imaging device, from a storage device

located on a network [0040]

39.   <u>Note with respect to claim 33</u>, claim 33 is similar in scope to the claim 29, thus

the rejections to claim 29 hereinabove are also applicable to claim 33.

40.   <u>Note with respect to claim 35</u>, claim 35 is similar in scope to the claim 1, thus the

rejections to claim 1 hereinabove are also applicable to claim 35.

41.   Note further, the controller of a personal computer as discussed above is the

equivalent to the **processing circuit**, as recited by applicant.

42.   And further, Yamaguchi teaches displaying **medical images** [0036]

43.   <u>Note with respect to claim 36</u>, claim 36 is similar in scope to the claim 33, thus

the rejections to claim 33 hereinabove are also applicable to claim 36.

44.   <u>Note with respect to claim 37</u>,

45.   Yamaguchi teaches:

The system of claim 35,

a) Wherein the processing circuit is further configured to **allocate medical**

    images based on a type of monitor for which the medical images are

    best suited [0045] [0062] [0060].

46.   <u>Note with respect to claim 40</u>, claim 40 is similar in scope to the claim 26, thus

the rejections to claim 26 hereinabove are also applicable to claim 40.

47.   <u>Note with respect to claim 41</u>,

48.   Yamaguchi teaches:

The system of claim 35,

a) Wherein the processing circuit is further configured to allocate a graphical

element to a high resolution display or a low resolution display [0055]

b) A different number of pixels would be used to display the graphical element

on the high resolution display than the low resolution display [*as discussed*

above, exchanging images from one resolution display to a different

resolution display result in displaying the image with a different

number of pixels]

49.   Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi as applied to claims 1-6, 25-33, 35-38 and 40-41 above, and further in view of Butler et al. (U.S. Patent No. 6573913).

50.   Note with respect to claim 34,

51.   Yamaguchi teaches:

- Using displays of different resolutions [0052-0054] [Fig. 3]

- Combination of color and monochrome displays [0057]

- Selecting the appropriate display for displaying an image [0045]

52.   However, Yamaguchi does not expressly teach:

The software program of claim 33, further comprising:

a) A display protocol that allows a high resolution display to display a graphical element on **a display having more pixels vertically than horizontally**

b) A second display to display a graphical element on **a display having more pixels horizontally than vertically at a same time**

53.   Butler et al. teaches:

The software program of claim 33, further comprising:

a) A display protocol that allows a high resolution display to display a graphical element on **a display having more pixels vertically than horizontally**

b) A second display to display a graphical element on **a display having more pixels horizontally than vertically at a same time**

[*Fig. 11(a) and Fig. 13(b) clearly shows how a graphical element is being displayed on two monitors of different aspect ration at the same time*]

54.   Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the horizontally longer aspect ratio display and vertically longer aspect ratio display simultaneously displaying a graphical element teaching of Butler et al. to the plural medical display system of Yamaguchi, because this enable efficient viewing of images of different aspect ratios.

55.   Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi as applied to claims 1-6, 25-33, 35-37 and 40-41 above, and further in view of the applicant's admitted prior art in the specification [0054].

56.   Note with respect to claim 38,

57.   Yamaguchi teaches:

- Allocating a high resolution image to a high resolution display

- Allocating a color image to a color display

  [refer to claim rejection above with respect to claim 29]

58.   However, Yamaguchi does not expressly teach:

- Medical images in a stack synch

59.   The applicant's admitted prior art teaches:

- A stack sync is generally used for volumetric set of images that, when viewed in sequence, give a better understanding of subject of interest.

60.   Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to allocate high resolution images in a stack synch to a high resolution display and allocate color images in a stack synch to a color display, because this allows a better understand of subject of interest.

Allowable Subject Matter

61.   Claim 39 objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

62.   The following is an examiner's statement of reasons for allowance.

63.   Reference Yamaguchi have been made of record as teaching:

- Allocating images to the appropriate display [0045] [0055] [0062]

64.   H owever, none of the prior art teaches or suggests:

- Allocating all non-medical-image data to a low resolution color display if no

    color medical images are being displayed on the low resolution color display,

    as presently claimed

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Chu whose telephone number is (571) 272-8079. The examiner can normally be reached on M-TH 9:00am - 7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark k. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHC

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